

# Pest Update (January 4-11, 2012)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent in from any location – please provide a picture!**

## Available on the net at:

<http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx>

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any product identified in this publication.

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## Current information

### Should trees and shrubs be watered during this “warm” winter weather?

Considering how dry the fall had been and the warmer temperatures we are experiencing across much of the state this winter, it is not too surprising that this has become a common question. The purpose of winter watering is generally thought to be to replace the soil moisture that is being absorbed by roots and lost back into the atmosphere through the leaves. We often find evergreens in March



that have brown foliage (see picture to the left) due to the drying winter winds that caused the foliage to lose water that the plant could not replace from the roots. However it is not that simple to replace this water during the winter. Water movement up stems during winter days with air temperatures slightly above freezing does not occur on most woody species or is extremely slow. Also, soil temperatures influence root permeability and water uptake at 33°F may be only

one-fifth of that at soil temperatures near 60° to 70°F. If the soil is still frozen at 4 inches or so you might find that the water does not infiltrate into the soil and instead forms a layer of ice over the turf. It is best to check the soil first, by simply digging with a trowel to a depth of 6 inches or so, to be sure the water will be absorbed before adding any.

**Winter watering may be a good practice for some plants**, particularly for evergreen shrubs and small trees located along the south side of homes where the daytime air temperatures are reaching into the 50°F and even higher. The best way to water woody plants during the winter is to only water when the soils are not frozen and the air temperatures are above 40°F and restrict watering to mid-day so that the water will have an opportunity to soak into the soil before night. However if the trunk is still frozen, even this water will not be absorbed.

**What is the warm weather going to do to our trees and shrubs?** We have experienced some extremely warm weather in recent weeks with many communities routinely exceeding 50°F highs during the days. This is great for us, but what about our trees and shrubs? First, the process for woody plants acclimating to winter begins in late summer as the days become shorter and accelerates as the plants are exposed to autumn frosts. Once trees and shrubs have reached their fully hardiness they are set to endure our cold winters. Usually by mid-January many of our woody plants can survive temperatures as low as -40°F without injury. However, much of “winter” injury of woody plants in South Dakota occurs when plants are coming out of dormancy in the spring and we have an unusual dip of cold weather. This year we may see even more “winter” injury as the unseasonably warm weather is beginning to coax some plants out of their dormancy prematurely. We are already seeing flower buds for many of our spring flowering shrubs expanding as well as the leaf buds to some tree species. These plants are beginning to lose their tolerance to extremely cold temperatures and if (really when) we experience subzero weather the tender buds and shoots may be killed. I expect to see more winter-kill this spring as well as calls from people noticing their flowering trees and shrubs are not flowering as much as normal or not at all.

How much injury a particular plant might receive may not be known until later this winter after we have the inevitable cold snap. In early March some indication of how much injury a plant received can be gleaned by pulling away the bark from one year old twig. If the wood is light colored, the tissue did not experience cold injury and the plant should be fine, but if the wood is brown it was injured by the cold.

**It may be best to delay pruning this winter.** Despite the warm weather making yard work easier at this time, it might be best to delay pruning, particularly ornamental flowering trees and fruit trees until late March, just before bud break. At that time any of the shoots that were killed by the cold will be easier to see since their buds will be shrunken and dry, rather than large and soft.

## E-samples



I receive a picture and a sample from Douglas County of a dying spruce branch. Spruces can be troubled by many problems from cytospora canker to spruce needleminer and it is not too unusual to find mature trees with at least several of these pests. The sample and picture showed one pest, the **spruce bud scale**. This insect is easily overlooked as it appears as a bud near the base of the branchlets (the light-color spherical forms in the center of the picture).

There are usually two or three scales clustered around a twig. The scales are common on Norway spruce but also occur on blue and Black Hills spruce particularly on the lower shaded branches. The scale sucks the sap from the shoots and this feeding may be responsible for needle loss and branch decline but it is probably not the primary reasons for these symptoms. Generally I also find cytospora canker on the lower branches expressing these symptoms and this is the more likely reason for branch dieback.



Not every insect in a pine is a mountain pine beetle. While there are many mountain pine beetle infested trees in the Black Hills, these infested trees also become hosts to a number of other insects. The wide-bodied “worm” in the center of the picture is the larvae to the **longhorned beetle**. These insects are commonly found in dead and dying pines that were injured by fire or mountain pine beetles. In the past we usually did not see longhorned beetle larvae in a mountain pine beetle killed

tree until a year or two after the pine beetle attacked it. Now we are seeing longhorned beetles in the tree at the same time as the mountain pine beetle.